

IN THE CLAIMS:

Replace all previous versions of the claims with the following listing:

1-7. (Canceled)

8. (Currently Amended) ~~The~~ A bulk material cooler ~~as claimed in claim 7;~~ having a cooling grate which carries material to be cooled and transports the material to be cooled, through which a cooling gas flows, from a charging end for the material to be cooled to a discharging end for the material to be cooled, wherein

the cooling grate is made up of a number of adjacently arranged elongate bottom elements which extend in a longitudinal direction of the cooler, are movable in a controlled manner at least partly independently of one another between a forward-travel position in a transporting direction of the material to be cooled and a return-travel position so that the material to be cooled is conveyed through the cooler step by step in accordance with the walking floor conveying principle;

the bottom elements have, seen in cross section, an upper side which carries the material to be cooled and allows the cooling gas to pass through from underneath upward, and, at a distance from the upper side, a closed underside preventing material to be cooled from falling through the grate; and

the underside of the bottom elements has a number of cooling-gas inlet openings distributed over the length, to aerate the bottom elements and consequently the cooling grate;

wherein the upper sides of the bottom elements that are longitudinally movable in each case comprise gabled-roof-shaped V profiles arranged spaced apart mirror-symmetrically opposite one another, but offset in relation to one another, such that an upper set of V profiles are inverted with two legs of the V completely overlying upwardly extending legs of two adjacent V profiles of a lower set, the V legs of which the two sets of profiles engage in engaging one another with an intermediate space, which latter forms a labyrinth for the material to be cooled and for the cooling gas.

9. (Previously Presented) The bulk material cooler as claimed in claim 8, wherein webs lying transversely in relation to the transporting direction of the material to be cooled are arranged on the upper side of the bottom elements to fix the lowermost layer of bulk material and to avoid relative movement of this lowermost layer and the bottom element.

10. (Currently Amended) The bulk material cooler as claimed in claim 7, wherein webs lying transversely in relation to the transporting direction of the material to be cooled are arranged on the upper side of the bottom elements to fix the lowermost layer of bulk material and to avoid relative movement of this lowermost layer and the bottom element.

11. (Currently Amended) ~~The~~ A bulk material cooler as claimed in claim 7, having a cooling grate which carries material to be cooled and transports the material to be cooled, through which a cooling gas flows, from a charging end for the material to be cooled to a discharging end for the material to be cooled, wherein

the cooling grate is made up of a number of adjacently arranged elongate bottom elements which extend in a longitudinal direction of the cooler, are movable in a controlled manner at least partly independently of one another between a forward-travel position in a transporting direction of the material to be cooled and a return-travel position so that the material to be cooled is conveyed through the cooler step by step in accordance with the walking floor conveying principle;

the bottom elements have, seen in cross section, an upper side which carries the material to be cooled and allows the cooling gas to pass through from underneath upward, and, at a distance from the upper side, a closed underside preventing material to be cooled from falling through the grate; and

the underside of the bottom elements has a number of cooling-gas inlet openings distributed over the length, to aerate the bottom elements and consequently the cooling grate;

wherein overlapping longitudinal webs with horizontal overlapping areas are arranged on the opposite longitudinal sides of the adjacent bottom elements that are movable in a controlled manner, with a horizontal sealing gap tending toward zero being formed in each case.

12. (Currently Amended) The bulk material cooler as claimed in claim 7 8, wherein, seen over a length and over a width of the bulk material cooler, the cooling grate is made up of a number of bottom element modules, the bottom element modules respectively of a row are arranged and coupled one behind the other in the transporting direction of the material to be cooled.

13. (Previously Presented) The bulk material cooler as claimed in claim 12, wherein a driving of the individual bottom elements of the bottom element modules, to move them between the forward-travel position and the return-travel position takes place from underneath the cooling grate, the driving taking place in such a way that the connecting elements of the bottom element modules lying one behind the other respectively of a row being subjected in particular only to tensile stress.

14. (Canceled)

15. (Currently Amended) ~~A~~ The bulk material cooler ~~of claim 14~~, having a cooling grate through which a cooling gas flows, which carries material to be cooled and transports the material to be cooled from a charging end to a discharging end, wherein
the cooling grate comprises a plurality of adjacently arranged elongate bottom elements which extending along a length in a longitudinal direction of the cooler, are movable in a controlled manner at least partly independently of one another between a forward-travel position in the transporting direction of the material to be cooled and a return-travel position;

the bottom elements have an upper side which carries the material to be cooled and allows the cooling gas to pass through from underneath upward, and, at a distance from the upper side, a closed underside preventing material to be cooled from falling through the grate; and

the underside of the bottom elements has a number of cooling-gas inlet openings distributed over the length, to aerate the bottom elements and consequently the cooling grate;

wherein the upper sides of the bottom elements comprise gabled-roof-shaped V profiles arranged spaced apart mirror-symmetrically opposite one another, but offset in relation to one another, such that an upper set of V profiles are inverted with two legs of the V completely overlying upwardly extending legs of two adjacent V profiles of a lower set, the V legs of which- the two sets of profiles engage inengaging one another with an

intermediate space, which latter forms a labyrinth for the material to be cooled and for the cooling gas.

16. (Previously Presented) The bulk material cooler of claim 15, wherein webs lying transversely to the transporting direction of the material to be cooled are arranged on the upper side of the bottom elements to positionally fix a lowermost layer of bulk material and to avoid relative movement between this lowermost layer and the bottom element.

17. (Currently Amended) The bulk material cooler of claim 14 15, wherein webs lying transversely to the transporting direction of the material to be cooled are arranged on the upper side of the bottom elements to positionally fix the lowermost layer of bulk material and to avoid relative movement between this lowermost layer and the bottom element.

18. (Currently Amended) ~~The A bulk material cooler of claim 14, having a~~
cooling grate through which a cooling gas flows, which carries material to be cooled and transports the material to be cooled from a charging end to a discharging end, wherein
the cooling grate comprises a plurality of adjacently arranged elongate bottom
elements which extending along a length in a longitudinal direction of the cooler, are
movable in a controlled manner at least partly independently of one another between a
forward-travel position in the transporting direction of the material to be cooled and a return-
travel position;

the bottom elements have an upper side which carries the material to be cooled and
allows the cooling gas to pass through from underneath upward, and, at a distance from the
upper side, a closed underside preventing material to be cooled from falling through the
grate; and

the underside of the bottom elements has a number of cooling-gas inlet openings
distributed over the length, to aerate the bottom elements and consequently the cooling grate;

wherein overlapping longitudinal webs with horizontal overlapping areas are arranged on opposite longitudinal sides of the adjacent bottom elements, with a horizontal sealing gap tending toward zero being formed in each case.

19. (Currently Amended) The bulk material cooler of claim ~~14~~15, wherein, over the length and the width of the bulk material cooler, the cooling grate is made up of a plurality of bottom element modules, the bottom element modules of a row arranged one behind the other in the transporting direction of the material to be cooled being coupled.

20. (Previously Presented) The bulk material cooler of claim 19, wherein a driving of the individual bottom elements of the bottom element modules, to move them between the forward-travel position and the return-travel position, takes place from underneath the cooling grate, the driving taking place in such a way that connecting elements of the bottom element modules lying one behind the other of a row being subjected only to tensile stress.